

REMARKS

Claims 1, 2, 7-20, 23, 24, 27, 28, and 31-60 remain in the application.

Specification

Claim 6 has been canceled.

Claim Rejections - 35 USC § 112

Claim 61 has been canceled.

Claims 7 and 11-12 do not contain the contended “extended 802.11” claim limitation.

Claim Rejections – 35 USC §102

Claims 1-2, 20, 23, 24, 27, 38-45, 47-50, and 59-60 were rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Perahia et al. (US 7352688, hereinafter, “Perahia”).

Applicant has amended the claims to recite that the modified preamble comprises, “a conventional 802.11a preamble including an 802.11a short training field, an 802.11a long training field, and additional preamble fields”. This enables backwards compatibility with legacy IEEE 802.11a devices.

Perahia does not disclose a modified preamble including short and long training fields conforming to the IEEE 802.11a standard. The long training fields described in Perahia either do not conform to the IEEE 802.11a preamble timing structure (e.g., FIG. 5, with blank sections where long training fields should be transmitted) or modified 802.11a long training fields (FIG. 6), which would not be recognizable by legacy IEEE 802.11a devices.

Accordingly, Applicant submits that these claims are allowable.

Claims 11 and 12 were rejected under 35 U.S.C. 102(e) as allegedly being anticipated by Thomson et al. (US 20030058951, hereinafter, “Thomson”).

The Action characterizes Thomson as describing a technique for increasing data capacity by utilizing out-of-band frequencies, citing paragraph [0006], lines 14-17 and FIG. 4a. However, the text and figure only describe the standard IEEE 802.11a practice of utilizing a specific portion of the 20MHz channel, i.e., 52 non-zero subcarriers in a 16.5MHz range, with 3.5MHz unused and reserved for preventing interference between channels. From Thomson ([0006], ll. 14-17:

“The 802.11a standard specifies that each 20 MHz channel has 52 subcarriers covering 16.5 MHz of the 20 MHz, leaving 3.5 MHz to be used for preventing interference between channels.”

There is no indication in Thomson that the reserved 3.5 MHz "buffer" is used to transmit data in contradiction to the 802.11a standard, as recited in claims 11 and 12.

Accordingly, Applicant submits that these claims are allowable.

Claim Rejections – 35 USC §103

Claims 7-10, 13-19, 28, 31-37, 46, and 51-58 were rejected as being allegedly being unpatentable over Perahia in view of Thomson, Larsson (US 20020118771), Crawford (US 20020160737), and/or Moose (US 20020065047).

As described above, the primary reference used for these combinations, Perahia, does not disclose a modified preamble including short and long training fields conforming to the IEEE 802.11a standard.

Applicant submits that none of Perahia, Thomson, Larsson, Crawford, and Moose, either alone or in combination, teach or suggest the claimed invention.

Accordingly, Applicant submits that these claims are allowable.

CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

Dated: May 28, 2009

By: 

Kenyon S. Jenckes
Reg. No. 41,873

QUALCOMM Incorporated
Attn: Patent Department
5775 Morehouse Drive
San Diego, California 92121-1714
Telephone: (858) 651-8149
Facsimile: (858) 658-3984